

CLAIMS

1. A system for detecting intrusions, comprising:
 - a) a signature computing function configured to compute a file signature for a file;
 - b) a storage for storing a first file signature previously computed by the signature computing function for the file;
 - c) a storage for storing a second file signature previously computed by other than the signature computing function for the file; and
 - d) an analysis engine configured to compare the computed file signature to the first and second previously computed file signatures.
2. The system as recited in claim 1, wherein the storage for the second previously computed file signature is a package management database.
3. The system as recited in claim 2, wherein the package management database is at a remote location from the host.
4. The system as recited in claim 2, wherein the storage for the first previously computed file signature is an internal database.
- 20 5. The system as recited in claim 4, wherein the internal database includes signatures for files previously computed by other than the signature computing function.

6. The system as recited in claim 1, wherein the first file signature is previously
computed from an archival file.

7. A system for detecting intrusions, comprising:

5 a) a package management database including a previously computed signature for a
file;

 b) a database of exceptions; and

 c) an analysis engine configured to compute a current signature for the file, compare
the computed signature to the previously computed signature, and if there is a
10 mismatch between the computed and previously computed signatures, check the
mismatch against the database of exceptions.

8. The system as recited in claim 7, wherein the database of exceptions includes a
plurality of rules.

15 9. The system as recited in claim 8, wherein the database of exceptions further includes
a rule categorizing some types of files as expected to change, and other types of files
as expected to remain constant.

20 10. The system as recited in claim 9, wherein the analysis engine is further configured to
use information from a file type, filename, and file type categorization to compute a
suspicion level associated with a change in the file.

11. A method for detecting intrusions on a host comprising the steps of:

- a) providing a signature computer;
- b) computing a signature of a file with the signature computer;
- c) comparing the computed signature to a file signature previously computed by the
5 signature computer; and
- d) comparing the computed signature to a file signature previously computed by
other than the signature computer.

12. A method for detecting intrusions, comprising the steps of:

- 10 a) storing a previously computed signature for a file;
- b) providing a database of exceptions;
- c) computing a current signature for the file;
- d) comparing the computed signature to the previously computed signature; and
- e) if there is a mismatch between the computed and previously computed signatures,
15 checking the mismatch against the database of exceptions.

13. A computer program product for detecting intrusions on a host, the computer program

product being embodied in a computer readable medium having machine readable

code embodied therein for performing the steps of:

- a) providing a signature computer;
- 5 b) computing a signature of a file with the signature computer;
- c) comparing the computed signature to a file signature previously computed by the
- signature computer; and
- d) comparing the computed signature to a file signature previously computed by
- other than the signature computer.

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14. A computer program product for detecting intrusions on a host, the computer program

product being embodied in a computer readable medium having machine readable

code embodied therein for performing the steps of:

- a) storing a previously computed signature for a file;
- 15 b) providing a database of exceptions;
- c) computing a current signature for the file;
- d) comparing the computed signature to the previously computed signature; and
- e) if there is a mismatch between the computed and previously computed signatures,
- checking the mismatch against the database of exceptions.

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